Verification of Quantitative Methods

Purpose	**To show that the instrument is fit for use after completion of annual preventative maintenance.**
Analyte	**Ethanol**
Unit of Measure	**g/100 mL**
Lowest Calibrator Concentration	**0.010 g/100mL**
Highest Calibrator Concentration	**0.500 g/100 mL**
Primary Matrix	**Blood**
Secondary Matrices	**Alcoholic Beverages and Other Liquid Specimens**
Analyst Performing Verification Study	**Kayla M. Baylor**
Reviewer	**Melissa Henry**
Start Date	**February 5, 2025**
Completion Date	**February 5, 2025**
Instrument	**BAC-2**
Method	**BAC.M**

Verification Approval

Analyst: Kayla M. Baylor Digitally signed by Kayla M. Baylor Date: 2025.02.11 15:18:10 -06'00' 2/11/2025
Date

Reviewer: Melissa Henry Digitally signed by Melissa Henry Date: 2025.02.11 15:26:04 -06'00' 2/11/2025
Date

Verification of Quantitative Methods

Purpose	To show that the instrument is fit for use after completion of annual preventative maintenance.
Analyte	Ethanol
Unit of Measure	g/100 mL
Lowest Calibrator Concentration	0.010 g/100mL
Highest Calibrator Concentration	0.500 g/100 mL
Primary Matrix	Blood
Secondary Matrices	Alcoholic Beverages and Other Liquid Specimens
Analyst Performing Verification Study	Kayla M. Baylor
Reviewer	Melissa Henry
Start Date	February 5, 2025
Completion Date	February 5, 2025
Instrument	BAC-2
Method	BAC.M

Verification Approval

Analyst: _____
Date

Reviewer: _____
Date

Verification Study — BIAS AND PRECISION

Analyte: **Ethanol**
Units: **g/100 mL**
Instrument: **BAC-2** **FID1**

Analyst: **Kayla M. Baylor**
Study Dates: **2/5/2025 to 2/5/2025**
Matrix: **Blood**

Batch Name	Run Order	Low QC	Blood QC A	Blood QC B	High QC
	Target Concentration (g/100mL):	*0.080*	*0.0788*	*0.1917*	*0.400*
BAC_20250206_KB	1	0.0793	0.0764	0.1917	0.4005
	2	0.0798	0.0767	0.1905	0.4017
	3	0.0800	0.0767	0.1883	0.4022
Within Run	**Mean**	**0.0797**	**0.0766**	**0.1902**	**0.4015**
	SD	**0.0004**	**0.0002**	**0.0017**	**0.0009**
	%CV	**0.45%**	**0.23%**	**0.91%**	**0.22%**
	% Bias	**-0.38%**	**-2.79%**	**-0.80%**	**0.37%**

Comments:

Acceptance Criteria: **%Bias: ≤5% if target concentraton is > 0.05 g/100mL**
≤10% if target concentraton is ≤ 0.05 g/100mL
Within-Run %CV ≤10%

Verification Study — BIAS AND PRECISION

Analyte: **Ethanol**
Units: **g/100 mL**
Instrument: **BAC-2** **FID2**

Analyst: **Kayla M. Baylor**
Study Dates: **2/5/2025 to 2/5/2025**
Matrix: **Blood**

Batch Name	Run Order	Low QC	Blood QC A	Blood QC B	High QC
	Target Concentration (g/100mL):	*0.080*	*0.0788*	*0.1917*	*0.400*
BAC_20250206_KB	1	0.0786	0.0762	0.1921	0.4029
	2	0.0790	0.0763	0.1920	0.4034
	3	0.0796	0.0768	0.1880	0.4040
Within Run	**Mean**	**0.0791**	**0.0764**	**0.1907**	**0.4034**
	SD	**0.0005**	**0.0003**	**0.0023**	**0.0006**
	%CV	**0.64%**	**0.42%**	**1.23%**	**0.14%**
	% Bias	**-1.17%**	**-3.00%**	**-0.52%**	**0.86%**

Comments:

Acceptance Criteria: **%Bias: ≤5% if target concentraton is > 0.05 g/100mL**
≤10% if target concentraton is ≤ 0.05 g/100mL
Within-Run %CV ≤10%

SUMMARY OF VERIFICATION PERFORMANCE

Analyte: **Ethanol**
Units: **g/100 mL**
Instrument: **BAC-2**

Analyst: **Kayla M. Baylor**
Study Dates: **2/5/2025 to 2/5/2025**
Matrix: **Blood**

Failed Runs (include dates/reasons):

Date	Reason
N/A	N/A

Deviations from SOP: N/A

Notes: N/A

Conclusion: **BAC-2 is fit for analysis of ethanol casework.**

Date	Section	Previous	Changed to	Reason	By whom
8/24/2027	Cover Pages (B18,C18)	Validation Approval	Verification Approval	Corrected to match form	KB/DS
	Performance Summary (Row 2)	Summary of Validation Performance	Summary of Verification Performance	Corrected to match form	